

## Next generation antenna architecture

Interferometric array antenna structures for optimizing power and minimizing interference

Enhances Mobile Phone Performance, Mitigates Energy Loss to

Human Body and Enables Hearing Aids

February 06, 2013

Office of the Secretary Federal Communications Commission 445 12th St., S.W., Room TW-A325 Washington, D.C. 20554

RE: Comments for the Matter of Service Rules for the Advanced Wireless Services H Block (WT Docket No. 12-357).

Dear Commissioner:

Vortis Technology Inc., (VTI) approves the expanded development of the spectrum to provide digital wireless phone makers with a new conduit to deliver video and advertising to portable wireless devices (cell phones) as stated.

VTI rejects further use of additional antennas that fail to meet regulations set forth in the FCC's Report and Order (R&O) adopted July 10th, 2003 and released August 14, 2003 Section 68.4(a) of the Commission's Rules Governing Hearing Aid-Compatible (HAC) Telephones WT Docket No. 01-309 RM-8658.

Vortis technology allowed Brenda Battat, our Presidential Advisor for the Hard of Hearing to enjoy a digital technology call free of interference in 2002 and setting the 21<sup>st</sup> Century Standard; still unmatched in performance.

Vortis type antennas (highly directional) were noted by the Commission in the HAC R&O as offering greater efficiencies to the service and the end user. The present efficiencies of antennas are low because cost is low. Vortis type antennas can serve up to 5% to 15% of the user base with higher Total Radiated Power (TRP) standards.

There is a growing societal deficiency measured by humanities most asked question: "can you hear me now."

Additionally, VTI rejects the SAR compliance processes that allow placement of an instruction in the owner's manual to "hold the phone away from your head [5/8th inch on one; 1" on another]" as a means to meet SAR compliance.

In addition, some marketing numbers [for booster antennas] state that as many as 67% of the user base have difficulty with the air interface protocols in their home that renders the handset useless.

VTI prefers to use Interferometric array antenna technology aka Vortis Technology as a means to reduce signal loss to the users head and enhance signal strength to the air interface. VTI believes this to be a needed customer service.

In item # 80 of the HAC R&O, the Commission was concerned that requiring 100 percent compliance at that time could have an unintended effect of stifling innovation. The Commission structured its rule in a manner that "did not discourage or impair the development of improved technology." Interference levels of the new picture and video phones were not known by the Commission at the time of this R&O. The FCC chose a policy consistent with the spirit of the HAC Act while stating: "we do not want to deter the manufacturers of these products from bringing them to market." The Commission concluded that full compliance was not feasible at that time.

VTI believes the concern about stifling innovation has created less innovation because innovation only comes from market or regulatory pressure.

James R. Johnson, Chairman